

2016.12.12-2016.12.18

1.This Week

Security Project

1. Have a discussion with our group members. Report our work of last week. Decide what we need to do this week and discuss about how we are going to do it.

2.Do the coding job of our system:

- add new click logic to the new interface branch
- revise bugs of the dragging function

3. Find a possible research topic from our project and do the idea evaluation this week (explained in the next part).

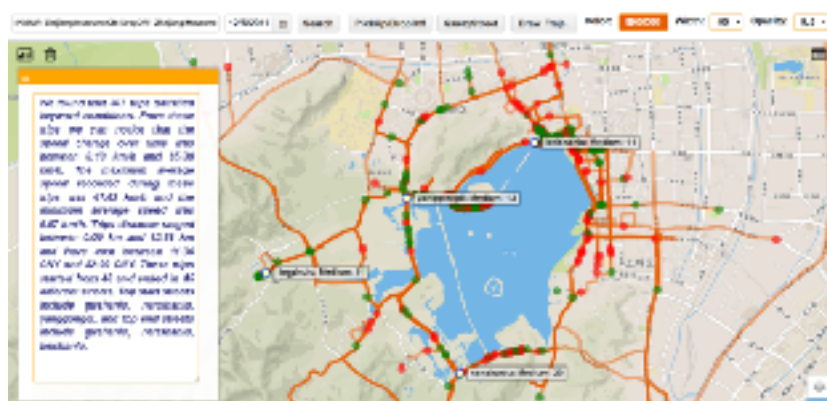
Others

1. Survey on the topic of anomaly detection and evaluation (If it is possible, I would like to talk to you about this topic next week): In our project, we would like to find out the relationships between network institutions or network devices. Actually, the relationships of all those network devices makes a network (presented as a graph). A lot of work has been done before to detect anomaly in a network, but it is always difficult to evaluate whether the results we found out are reliable or not. As a result, I want to dig into this topic and find out what we can do about this problem.

2.Prepare for the idea evaluation and do the idea evaluation this week. (The idea evaluation slice is also uploaded as an attachment.)

Paper Reading

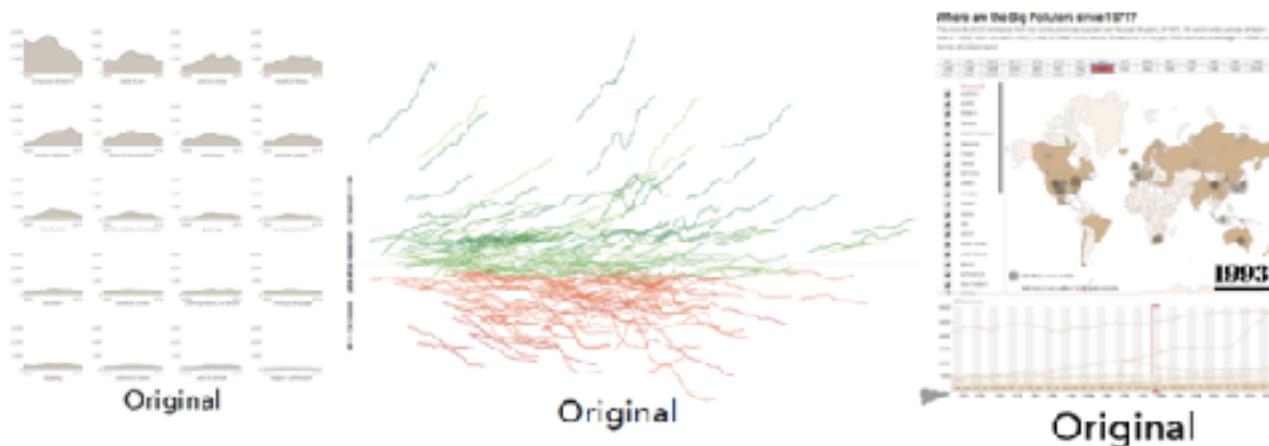
1. SemanticTraj: A New Approach to Interacting with Massive Taxi Trajectories.



This paper uses semantic transfer tools to transfer taxi trajectory data into term based indexing schemes, including taxi trajectory index document and trip index document. The former one contains semantic index of taxi trajectories and the second one contains semantic records of users trip information (got from the get on and get off behavior of passengers). And the results of the experiment of this paper indicates that semantic information of trajectory appear to be more efficient for people to understand data.

In most cases, we would like to transfer semantic information into quantitative information, but this paper does the opposite thing and does it quite well.

2. Hindsight: Encouraging Exploration through Direct Encoding of Personal Interaction History



This paper presents a novel technique to record interaction history and help human memory. It presents a hypothesis that direct encoding history log provides positive influence to user behavior during exploration analysis and the did an experiment to prove this hypothesis. It uses three different visualization systems and split the experiment into three stage:

Training- Give a guide page to the participant which describe the task and interaction they need to do.

Exploration- The participants interact with the system.

Insight- Hide the visualization system and the participant need to describe 3-5 discoveries.

The result of the experiment turns out that the design of hindsight encourages people to dig out more knowledge interpreted by the data.

To Do

1. Keep up with the security project, including surveying on research topics and do coding jobs.
2. Surveying on the newly discovered idea from the security project.
3. Do seminar homework and thesis, prepare for the exams.